

Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 1 009 174 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
23.05.2001 Bulletin 2001/21

(51) Int. Cl.⁷: **H04Q 7/22**, H04Q 7/32,
H04L 29/06, H04Q 7/38

(43) Date of publication A2:
14.06.2000 Bulletin 2000/24

(21) Application number: **99124477.3**

(22) Date of filing: **08.12.1999**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

• **Shin, Sang Rim**
Tongan-gu, Anyang-shi, Kyonggi-do (KR)
• **Ok, Myoung Jin**
Seoul (KR)

(30) Priority: **09.12.1998 KR 9853994**

(71) Applicant: **LG ELECTRONICS INC.**
Seoul (KR)

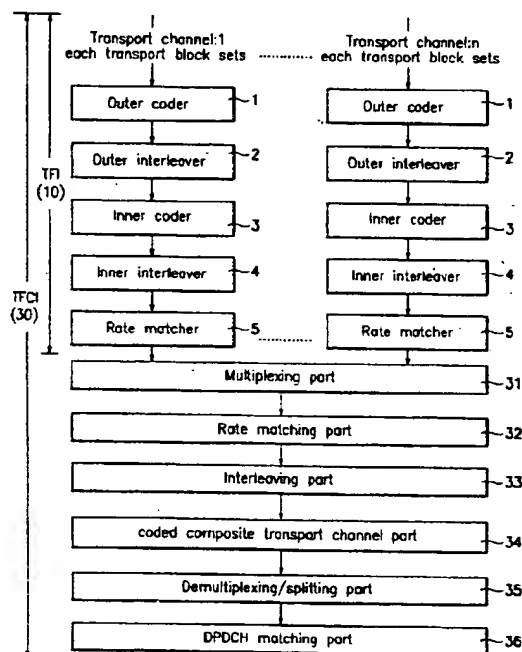
(74) Representative:
**von Samson-Himmelstjerna, Friedrich R., Dipl.-
Phys. et al**
SAMSON & PARTNER
Widenmayerstrasse 5
80538 München (DE)

(72) Inventors:
• **Hwang, In Tae**
Pundang-gu, Songnam-shi, Kyonggi-do (KR)

(54) **Apparatus and method for realizing TFCI for multiservice in mobile communication system**

(57) In order to provide a multiservice in a mobile communication system for furnishing more various multiservice by embodying a transport format combination indicator (TFCI), the apparatus and method for realizing the TFCI for a multiservice in the mobile communication system which requests the multiservice by loading the transport format indicator having a recording of an outer coding, outer interleaving, inner coding, inner interleaving and rate matching system necessary for the multiservice and also by transmitting it through the dedicated channel, comprises the steps of: multiplexing the transport format indicators based on the multiservice and performing the rate matching; interleaving and converting the rate-matched signal into a coded composite transport channel and a demultiplexing and splitting system; and loading the signal on one or a plurality of dedicated physical data channels according to a rate of the converted signal and transmitting the TFCI.

FIG.1



EP 1 009 174 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 99 12 4477

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	<p>NIKULA E ET AL: "FRAMES MULTIPLE ACCESS FOR UMTS AND IMT-2000"</p> <p>IEEE PERSONAL COMMUNICATIONS, US, IEEE COMMUNICATIONS SOCIETY,</p> <p>vol. 5, no. 2, 1 April 1998 (1998-04-01), pages 16-24, XP000751831</p> <p>ISSN: 1070-9916</p> <p>* page 22, paragraph "FMA2 channel coding and service multiplexing" *</p> <p>* figure 13 *</p>	1,2	<p>H04Q7/22</p> <p>H04Q7/32</p> <p>H04L29/06</p> <p>H04Q7/38</p>
P,A	<p>ZENG M ET AL: "RECENT ADVANCES IN CELLULAR WIRELESS COMMUNICATIONS"</p> <p>IEEE COMMUNICATIONS MAGAZINE, IEEE SERVICE CENTER, PISCATAWAY, N.J, US,</p> <p>vol. 37, no. 9, September 1999 (1999-09), pages 128-138, XP000853477</p> <p>ISSN: 0163-6804</p>		
T	<p>"ETSI TS 125 212 Universal Mobile Telecommunications system (UMTS); Multiplexing and channel coding (FDD) "</p> <p>ETSI,</p> <p>January 2000 (2000-01), XP002161524</p> <p>Valbonne, FR</p> <p>* paragraph '04.1! - paragraph '04.2! *</p> <p>* paragraph '4.2.14! - paragraph '4.3.5.2.2! *</p>		<p>TECHNICAL FIELDS SEARCHED (Int.Cl.7)</p> <p>H04Q</p>
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		28 February 2001	Janyszek, J-M
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone</p> <p>Y : particularly relevant if combined with another document of the same category</p> <p>A : technological background</p> <p>O : non-written disclosure</p> <p>P : intermediate document</p> <p>T : theory or principle underlying the invention</p> <p>E : earlier patent document, but published on, or after the filing date</p> <p>D : document cited in the application</p> <p>L : document cited for other reasons</p> <p>& : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03 32 (P04C01)